

## **REMARKS**

Claim 1 has been amended to clarify that the resin composition is a positive-tone radiation sensitive resin composition. Support for this amendment can be found in the specification at least at page 69, lines 12-16.

According to the Official Action, the period in Claim 1 should be moved and placed after formula (3). Claim 1 has been amended to correct this informality. Claim 15 has also been amended to include a period after the formula.

Claims 1, 3, 5, 6, 8, 10, 13, 14, and 17-21 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over JP 11-282163 to Toshiaki et al. (hereinafter referred to as “Toshiaki”). This rejection, which appears on pages 2-3, numbered paragraph 4 of the Official Action, is respectfully traversed.

As acknowledged in the Official Action, Toshiaki do not specifically disclose a resin composition as set forth in Claim 1. In order to remedy this acknowledged deficiency of Toshiaki, the Official Action proposes to substitute the counter-anion of the photoacid generator compound designated PAG4-11 with that of the photoacid generator compound designated PAG4-7. The Official Action, however, has pointed to no teaching in Toshiaki that would reasonably suggest the proposed modification. Rather, the Official Action asserts that the fluorine substituted benzene sulfonic acid in the PAG4-7 compound is one of the “preferred anions of the [Toshiaki] reference” and without further elucidation concludes that the proposed modification would have been obvious (pg. 3 of the Official Action). First, we note that the Official Action has provided no support to the assertion that fluorine substituted benzene sulfonic acid is a “preferred” anion of the Toshiaki reference. Accordingly, support for this assertion is respectfully requested in the next Official Action.

Further, it is respectfully submitted that the Official Action has failed to establish a *prima facie* case of obviousness. According to the MPEP, in order to establish a *prima facie* case of obviousness there must be some suggestion or motivation in the references themselves or in the knowledge generally available to one of ordinary skill in the art to modify the reference or to combine reference teachings. MPEP §2142. Thus, obviousness can only be established by modifying the teachings of the prior art where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves. MPEP §2143.01. The Official Action has pointed to no teaching in Toshiaki which would reasonably suggest the proposed modification. In fact, Toshiaki discloses numerous photoacid-generator/counter-anion combinations. Therefore, numerous potential combinations of photoacid generator and counter-anion could potentially be made. The Official Action has pointed to no teaching or suggestion in Toshiaki which would reasonably suggest: 1) substituting counter-anions of different photoacid-generator/counter-anion combinations; or 2) the selection of the specific photoacid-generator/counter-anion combination proposed in the Official Action. Accordingly, it is respectfully submitted that the Official Action has failed to establish a *prima facie* case of obviousness. Reconsideration and withdrawal of this rejection is therefore respectfully requested.

Claims 1, 5-11, 13-15, and 17-21 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over EP 908783 to Watanabe et al. (hereinafter referred to as “Watanabe”) in view of Toshiaki. This rejection is respectfully traversed.

As acknowledged in the Official Action, Watanabe fails to teach a sulfonium salt meeting the limitations of the claims. In order to remedy this acknowledged deficiency of Watanabe, the Official Action asserts that it would have been obvious to substitute the PAG4-11 compound of Toshiaki for that of the resist composition of Watanabe. As set forth above, however, the counter-anion of the PAG4-11 compound of Toshiaki does not meet the definition of formula (1-

b) of Claim 1. Accordingly, the substitution proposed in the Official Action does not result in a composition as set forth in Claims 1, 5-11, 13-15, and 17-21. Reconsideration and withdrawal of this rejection is therefore respectfully requested.

Claims 2 and 4 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Toshiaki in view of EP 11 17002 to Uenishi et al. (hereinafter referred to as “Uenishi”). Claims 2 and 4 were also rejected under 35 U.S.C. §103(a) as being unpatentable over Watanabe in view of Uenishi. Finally, Claims 1-21 were rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,136,500 to Kobayashi et al. (hereinafter referred to as “Kobayashi”) in view of Uenishi. Each of the aforementioned rejections is respectfully traversed.

Each of the aforementioned rejections relies upon Uenishi. The Uenishi reference, however, is a European Patent Application Publication which was published on July 18, 2001. Therefore, the earliest date that Uenishi is available as a reference {*i.e.*, under 35 U.S.C. §102(a)} is the publication date (*i.e.*, July 18, 2001). The present application, however, claims priority to Japanese Patent Application No. JP 350227/2000, which was filed on November 16, 2000. Since the Japanese priority document was filed before the earliest date that Uenishi is available as a reference, submission of a certified English translation of the JP 350227/2000 priority document would remove Uenishi as a reference. See MPEP §706.02(b). Applicant’s have submitted herewith a certified English translation of the JP 350227/2000 priority document. Reconsideration and withdrawal of each of the aforementioned rejections is therefore respectfully requested.

There is also objective evidence of non-obviousness in the specification which further distinguishes the claimed invention from the cited references. In particular, radiation sensitive resin compositions according to the claimed invention exhibit excellent resolution performance and pattern-forming capability while also exhibiting reduced nano-edge roughness (See Examples

1-14, Table 3, pg. 79 of the specification). In contrast, resin compositions outside of the scope of Claim 1 exhibited significantly higher nano-edge roughness values (See Comparative Examples 1 and 2, Table 3, pg. 79 of the specification). As set forth in the specification, resists having higher nano-edge roughness result in reduced dimensional accuracy and, as a result, the electrical performance of devices fabricated using the resist is impaired (pg. 3, lines 2-15 of the specification).

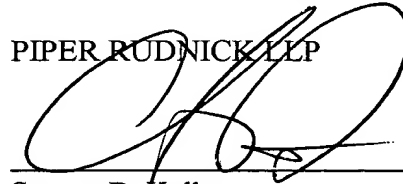
According to the MPEP, objective evidence of non-obviousness must be considered whenever present. See MPEP § 716.01(a). As also set forth in the MPEP, “[e]xaminers must consider comparative data in the specification which is intended to illustrate the claimed invention in reaching a conclusion with regard to the obviousness of the claims. In re Margolis, 785 F.2d 1029, 228 USPQ 940 (Fed. Cir. 1986).” See MPEP § 716.01(a). It is respectfully submitted that the aforementioned evidence of non-obviousness presented in the specification further distinguishes the claimed invention from the cited references.

## CONCLUSION

In light of the above, Applicants submit that this application is now in condition for allowance and therefore request favorable consideration. If any issues remain which the Examiner feels may be best resolved through a personal or telephonic interview, the Examiner is respectfully requested to contact Applicants' counsel at the phone number listed below.

Respectfully submitted,

PIPER RUDNICK LLP



---

Steven B. Kelber  
Registration No. 30,073  
Attorney of Record

1200 Nineteenth Street, N.W.  
Washington, D.C. 20036-2412  
Telephone No. (202) 861-3900  
Facsimile No. (202) 223-2085

Christopher W. Raimund  
Registration No. 47,258